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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CINCINNATI, OHIO 45268

January 5, 1993

Mr. Fred Stroud
On-Scene Coordinator
U.S. EPA Region IV
ERRB
345 Courtland St NE
Atlanta, Ga. 30365

RE: Site Visit and Recommendations for The Sadd Waste Oil Site, Nashville, Tennessee

Dear Fred:

On December 30, 1992 I travelled to the Sadd Waste Oil Site to overview ongoing work that was being performed by the PRP contractor and to determine what additional work may be needed to characterize and remediate the site. I will address four issues that I feel need to be evaluated with this site. The four issues are: 1. dye tracing; 2. collection of free phase product; 3. contamination beneath adjacent buildings; and 4. disposal or treatment of contaminated soils.

It is my understanding that a dye trace has not been conducted at this site. The karst geology of this area necessitates the implementation of a dye study in order to better understand subsurface transport routes. Since there are several other potential source areas that are not operationally related to the Sadd Site, an area wide dye study should be conducted. Migration pathways of free phase and disolved phase product needs to be understood in order to determine final remedial measures for the free phase product and ground water.

On-site excavations revealed the presence of free phase product in the trenches. The excavation that I observed was on the perimeter of the south side of the site. Free oil was observed flowing into the trench. Onsite personnel indicated that this was a common occurrence in excavations on the south portion of the site. It is possible to install collection trenches and place filter scavenger product recovery systems in trench sumps as a remediation option. I will provide additional information on recovery techniques if requested.

Contamination has impacted the soils beneath the buildings adjacent to the site. Onsite personnel indicated that significant investigatory work has not been conducted beneath the concrete slabs of the buildings. Soil borings and samples should be taken beneath the buildings to determine thicknesses of contamination. It is my opinion that it would not be practical to excavate the contamination beneath the buildings. A practical option to

remediate the volatiles in the soils beneath the buildings would be vapor extraction. A cut-off wall installed on the outer perimeter of the Sadd site, that would extend below the perched water table, would prevent migration of free phase product from the Site .

There appears to be a substantial volume of contaminated soils onsite. The onsite contractor indicated that the primary contaminants are total petroleum hydrocarbons (TPH). If TPH's are the contaminants of concern, then landfilling or the use of an onsite soil volatilization unit are two viable remediation options. I do not believe that soil vapor extraction is viable due to the consistency of onsite soils and shallow ground water depth.

The evaluation that I have given you is preliminary. I have not conducted a review of the data or reports for this site. If you need further assistance please contact me at (513)569-7537.

Sincerely,

Greg Powell
U.S. EPA
Environmental Response Team